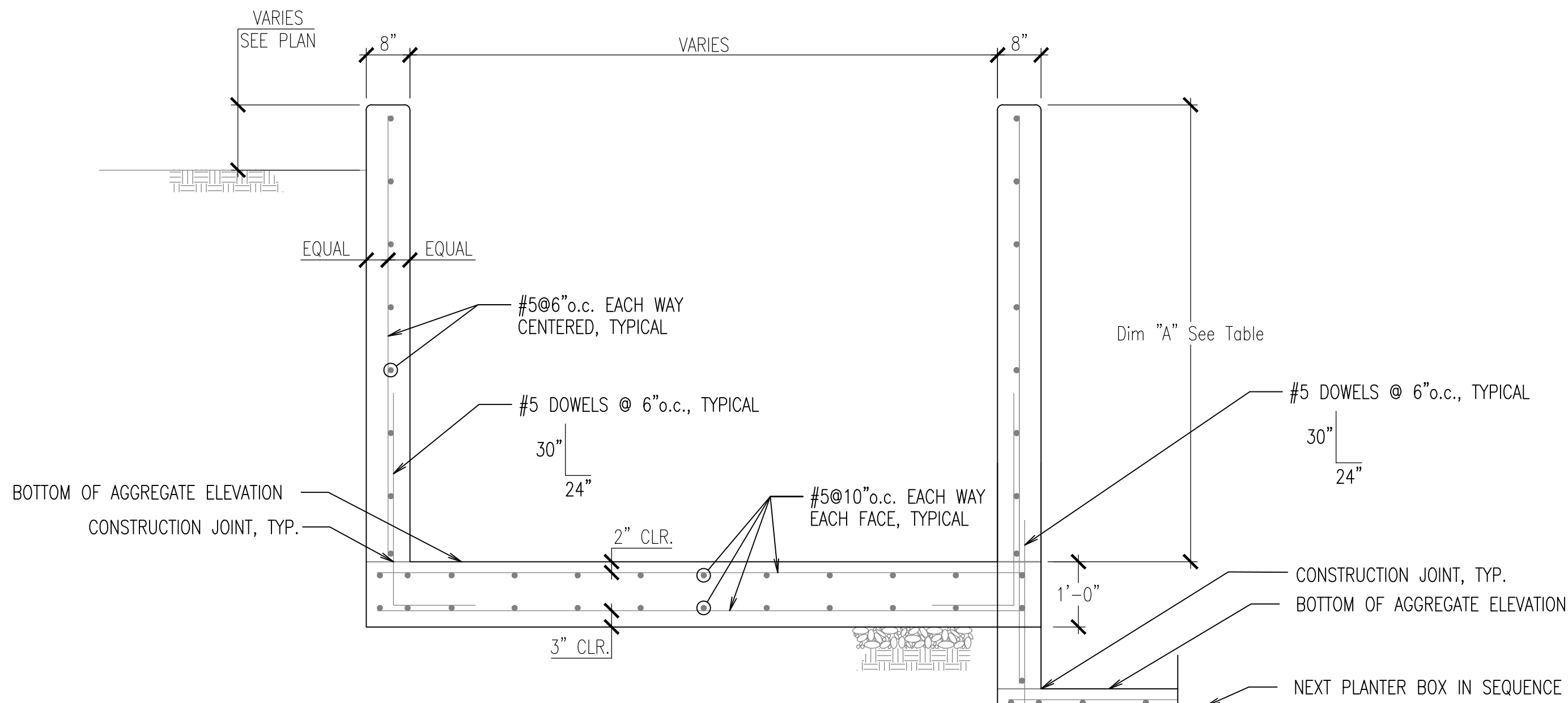


TYPICAL REINFORCEMENT CROSS SECTION
PLANTER BOX MICRO-BIORETENTION FACILITY

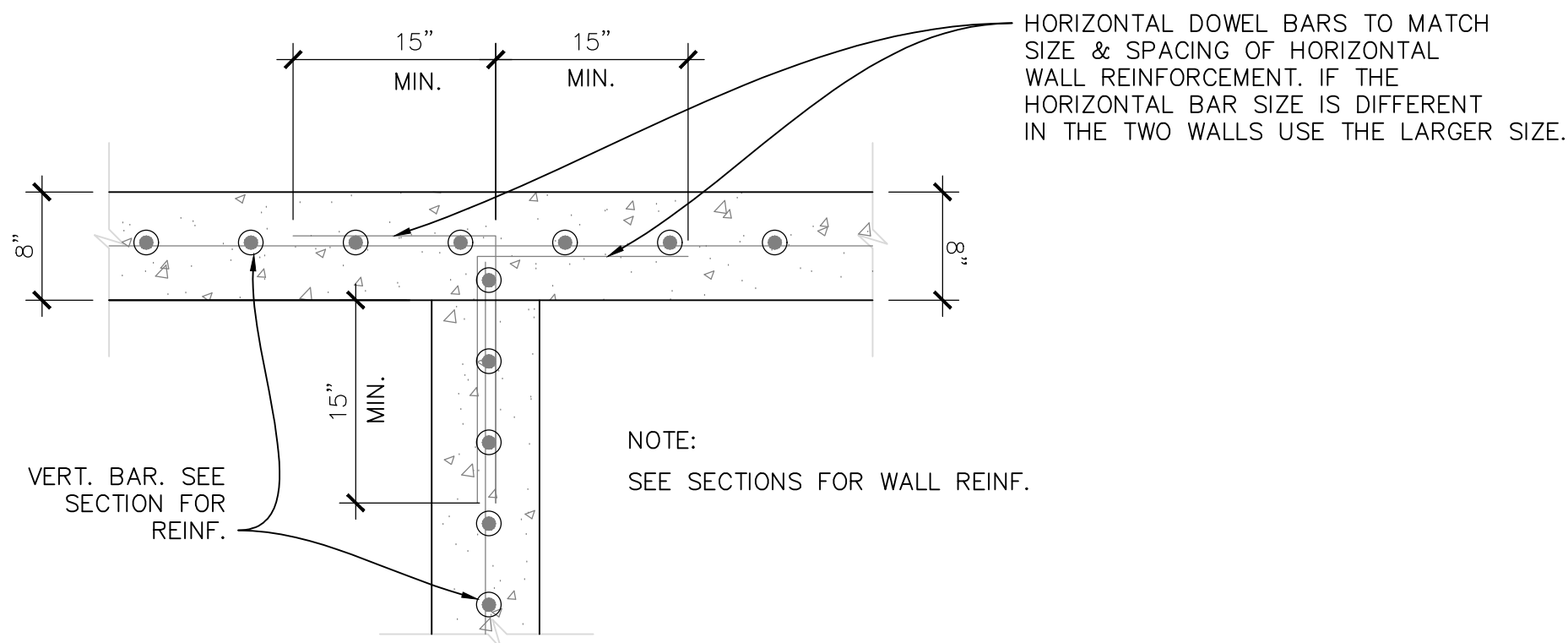
NOT TO SCALE
DESIGN LOAD: HYDROSTATIC LOADING + 100 psf LIVE LOAD SURCHARGE



TYPICAL REINFORCEMENT LONGITUDINAL SECTION
PLANTER BOX MICRO-BIORETENTION FACILITY

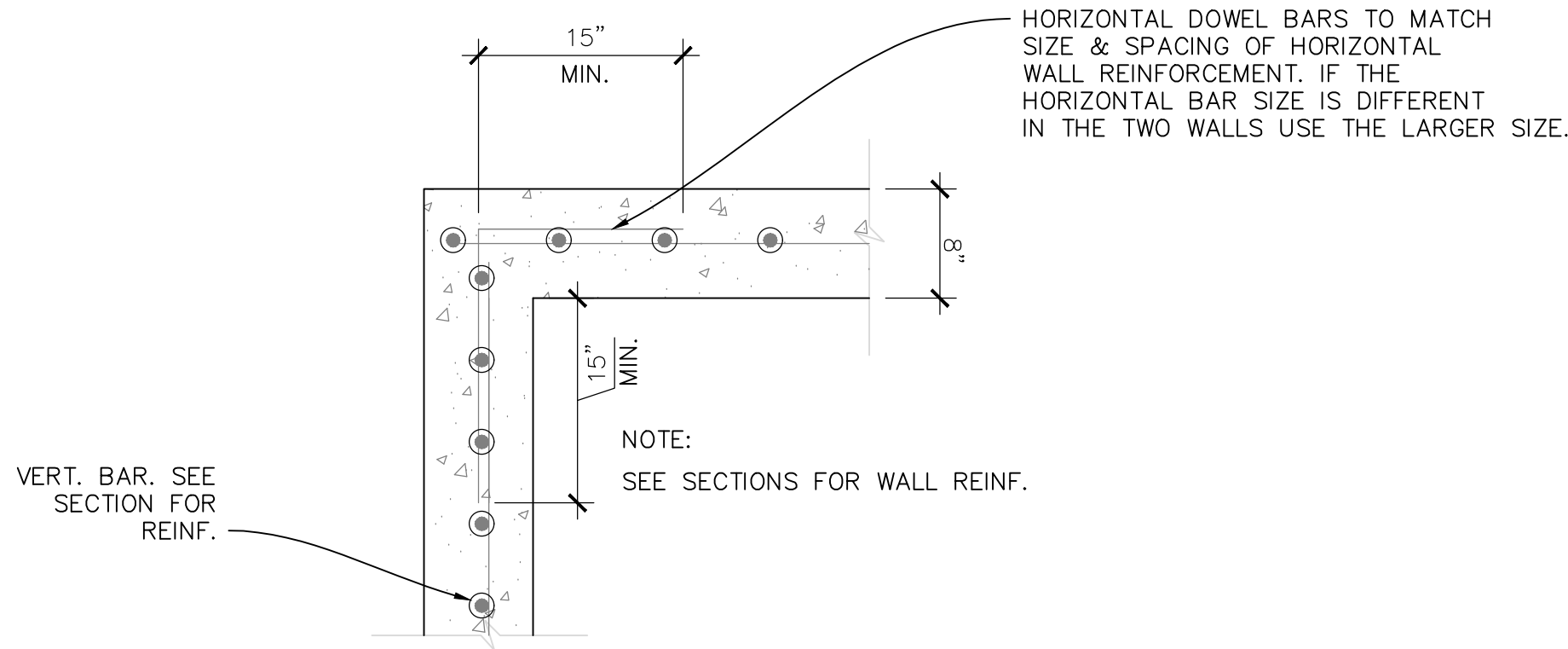
NOT TO SCALE
DESIGN LOAD: HYDROSTATIC LOADING + 100 psf LIVE LOAD SURCHARGE

Planter Box Wall Heights		
ID	Dim "A"	
	Max (ft)	Min (ft)
PB-5-A	7.25	6.25
PB-5-B	7.25	6.25
PB-5-C	7.25	6.25
PB-5-D	7.25	6.60
PB-7-A	7.75	6.75
PB-7-B	7.35	6.75
PB-7-C	7.25	6.25
PB-7-D	7.25	6.25
PB-7-E	6.25	6.25
PB-7-F	7.25	6.25
PB-7-G	7.25	6.25
PB-7-H	7.25	6.25



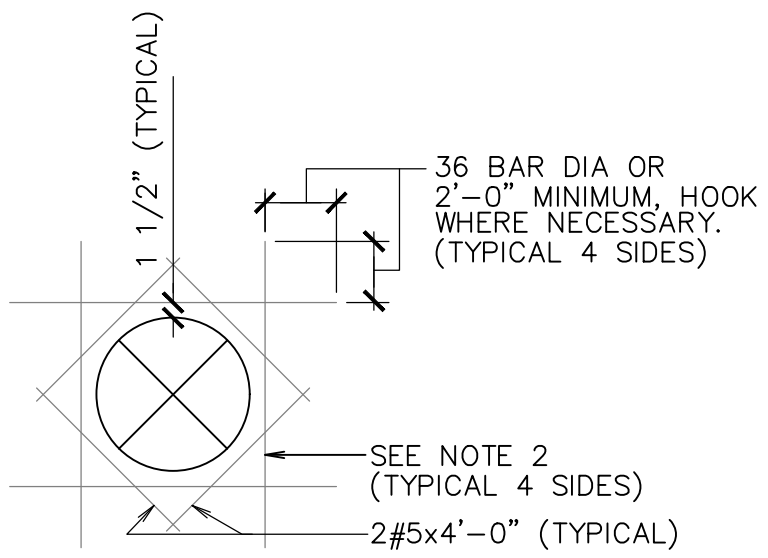
TYPICAL REINFORCING DETAIL
AT WALL T INTERSECTION

N.T.S.



TYPICAL REINFORCING DETAIL
AT WALL 90 DEGREE INTERSECTION

N.T.S.



- NOTES:
1. HOOK ALL INTERRUPTED BARS.
 2. 1/2 OF WALL REINFORCING INTERRUPTED BY OPENINGS SHALL BE PROVIDED AT EACH SIDE OF OPENING IN SAME FACE. PROVIDE A MINIMUM OF (2) BARS FOR SMALLER OPENINGS.

TYPICAL REINFORCING AT WALL OPENING DETAIL

N.T.S.

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT I HAVE REVIEWED THE STORMWATER MANAGEMENT DESIGN PLAN IN ITS ENTIRETY AND THAT THE STRUCTURAL DESIGN ADDRESSES ALL CONFIGURATIONS OF PROPOSED STORMWATER MANAGEMENT AS SHOWN ON THE PREVIOUS SHEETS INCLUDING INTERIM CONDITIONS AND MAINTENANCE CONDITIONS.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32926, EXPIRATION DATE: 05/28/2022

STRUCTURAL CERTIFICATION

I HEREBY CERTIFY THAT THE STRUCTURAL DESIGN OF STR. NO. PB-1 IS IN ACCORDANCE WITH THE APPLICABLE CODES AND THAT THE PLAN HAS BEEN DESIGNED FOR SPECIFIED LOADING(S) AS INDICATED HEREON.

STACY E. ROGERS, P.E. 32926
PRINTED NAME REGISTRATION NUMBER
HYDROSTATIC
DESIGN LOADING

ARCHITECT



9211 CORPORATE BLVD, SUITE 340
ROCKVILLE, MD 20880
301-770-8177(P) 301-330-3224(F)

CIVIL

MACRIS, HENDRICKS &
GLASCOCK
8220 WIGHTMAN RD, SUITE 120
MONTGOMERY VILLAGE, MD 20886
301-670-0840(P)

STRUCTURAL
COMPREHENSIVE
STRUCTURAL SOLUTIONS
8220 WIGHTMAN RD, SUITE 120
MONTGOMERY VILLAGE, MD 20886
240-200-5599(P)

MECH/ELECTRICAL/PLUMBING
JAMES POSEY ASSOCIATES

11155 RED RUN BLVD, SUITE 310
BALTIMORE, MD 21117
410-265-6100(P)

KITCHEN

NYIKOS-GARCIA
FOODSERVICE DESIGN, INC
18219-A FLOWER HILL WAY
GAITHERSBURG, MD 20879
240-683-9530 (P)

SUSTAINABILITY
DOO CONSULTING, LLC

531 PICCADILLY ROAD
BALTIMORE, MD 21204
443-653-3792 (P)

CONSTRUCTION MANAGER
SKANSKA USA BUILDING INC.

700 KING FARM BLVD, SUITE 200
ROCKVILLE, MD 20880
301-795-3100 (P)

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No.: 32926, Expiration Date: 5.28.2022.

PROFESSIONAL SEAL:

PRINTS ISSUED

NO.	DESCRIPTION:	DATE:
1	BID DOCUMENTS	10/21/2020
2	ADDENDUM #2	11/25/2020
3	ADDENDUM #3	12/01/2020
4	ADDENDUM #4	12/03/2020
5		

TAX MAP F162 WSSC 22ANW09
PLAT 12762
9TH ELECTION DISTRICT
CITY OF GAITHERSBURG, MD

GAITHERSBURG
CLUSTER
ELEMENTARY
SCHOOL #8

MONTGOMERY
COUNTY PUBLIC
SCHOOLS

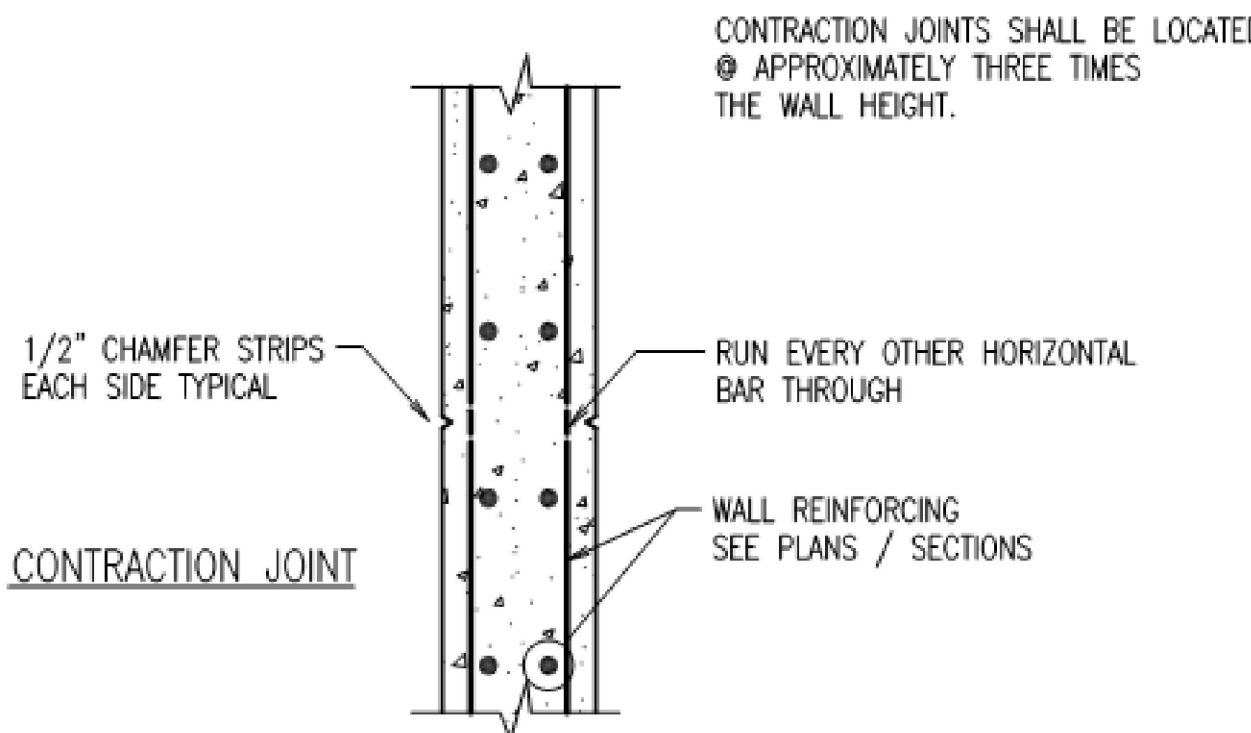
SHEET TITLE:
SOIL EROSION,
SEDIMENT CONTROL
AND STORMWATER
MANAGEMENT PLAN

PROJECT NO: 19007
DATE: 12/04/20
SCALE: 1"=30'
SHEET NO: SM#285890 SC#286335

C4.51
Sheet 26 of 28

General Notes for Concrete Planter Box Micro-Bioretentment Construction

1. All construction shall conform to the latest edition of the Standard Specifications for Construction and Materials, published by the Maryland State Highway Administration and other appropriate local jurisdiction.
2. Concrete mix design shall meet the requirements of the latest edition of ACI 301 and ACI 350, Environmental Engineering Concrete Structures, with freezing and thawing exposures. Concrete shall be type II or IIA cement, with a 28 day compressive strength of 4,500 psi. Type III cement is also acceptable so long as tricalcium aluminate is limited to no greater than 8%. Concrete shall be air entrained (5%) with a maximum water-cement ratio of 0.42. Concrete shall also meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 420, Mix No. 6.
3. Concrete mix designs shall be provided for review and approval by the design structural engineer.
4. Prior to pouring concrete, a certified third party inspector shall inspect the reinforcing steel for compliance with the contract documents and shall test the concrete in accordance with the above referenced ACI codes and standards. Daily reports and concrete testing results must be submitted to the both the civil and structural engineers of record for "As-Built" certification.
5. All reinforcing steel shall be ASTM A 615, Gr. 60. Vertical wall reinforcing to be placed in center of wall unless noted otherwise. All bars to be lapped 30 bar diameters unless noted otherwise.
6. All exposed concrete walls shall have a smooth architectural-style finish with minimal voids, cracks and imprints. All exposed edges shall have a 1" radius.
7. Structure design load requirements shall be determined by the structural engineer of record and specified on the Structural Certification shown hereon.
8. Construction joints on structures shall be located as shown and elsewhere as deemed necessary by the contractor. All construction joints shall have 2" X 4" keyway with rubber, neoprene or silicon waterstop. Bentonite waterstops are not acceptable. All structures shall be watertight.
9. Flexible watertight boot connections shall be used at all pipe penetrations.
10. All backfill material shall be as specified in project specifications and the project geotechnical report. Placement of fill shall be inspected by a certified third party inspector, as required in project specifications.
11. Foundation bearing capacity shall be as specified in the project geotechnical report.



TYPICAL CONCRETE WALL CONTRACTION JOINT



FOR UTILITY LOCATIONS
CONTACT "ONE CALL" AT 811
AT LEAST 48 HOURS
PRIOR TO CONSTRUCTION

NOTES:

1. See Sheet C4.06, planter box specifications and additional details and dimensions.
2. Contractor to coordinate layout of planter box facility with Arch., MEP and Landscape Plans.
3. Spot elevations within MB/PB facilities represent the elevation of the top of the settled planting media. 3" of mulch to be applied on settled planting media.